

1 I claim:

2 1) An interactive seamer comprising,

3 means for displaying a panorama generated from an number of original single view images,
4 said original single view images being joined in accordance with parameters provided by an
5 operator,

6 means for displaying control points on the location in said panorama that is projected from a
7 particular original single view image, whereby said control points can be dragged to change
8 the projection of said original single view image into said panorama,

9 means for changing the displayed panorama as said operator changes moves said control
10 points.

11
12 2) An interactive seaming program which displays

13 a Panorama Window that displays a panorama as it is being seamed from a number of
14 single view images, one of said single view images being a Selected Single View image,
15 an Alpha Window that shows areas of said Selected Single View image which have
16 different values of opacity, the size of the areas in said Alpha window being subject to
17 change by a user,

18 whereby the pixels visible in said Panorama Window in an overlap area can be changed.

19
20 3) An interactive seaming program that seams a number of original single view images into
21 a panorama,

22 a Panorama Window which displays said panorama as said seaming process progresses,
23 said Panorama Window displaying the area contributed to said panorama by each of said
24 original single view images,

25 a Selected Single View Image Window which displays a selected on of said original single
26 view images modified according to a number of parameters,

27 means for changing said parameters into modified parameters,

28 means for seaming said Selected Single View Image into said panorama according to said
29 modified parameters.

30
31 4, The seamer recited in claim 1 wherein said panorama is displayed in a Panorama
32 Window as said seaming operation proceeds.

1 5. The seamer recited in claim 1 including an Alpha Window which shows an area along
2 the sides of an image, the configuration of said area being changeable, one perimeter of
3 said area designating the area of said image wherein said image has an opacity of 1 in any
4 overlap in said panorama, and the other perimeter of said area designating the area of said
5 image wherein said image has an opacity of 0 in any overlap in said panorama, the opacity
6 varying from 1 to 0 between said areas.

7
8 6. The seamer recited in claim 1, including means for interactively changing the the opacity
9 of an image in overlap area of said panorama.

10
11 7. The seamer recited in claim 1 wherein said seamer includes a Panorama Window which
12 displays said panorama as said seaming operation proceeds, a Selected View Image
13 Window wherein various parameters which specify how a particular image is seamed into
14 said panorama can be changed, and an Alpha Window which shows an area of a particular
15 image wherein the opacity of said image varies from a first value to a second value, and
16 means for changing the size and shape of said area.

17
18 8. A computer system to seam a plurality of original single view images into a panorama
19 comprising,
20 a Panorama Window which shows said panorama as it is being seamed,
21 a Selected Image Window which shows a selected on of said original single view images as
22 modified by a plurality of parameters,
23 means for changing the value of said parameters
24 an Alpha Window which shows a peripheral area of said a selected one of said single view
25 images, said peripheral area varying in opacity from a first value on one edge of said area
26 to a second value on the other edge of said area,
27 means for changing the shape and location of said peripheral area,
28 a program for creating a panorama in said Panorama Window from said single view images
29 modified according to said parameters and overlapped according to said shape of said
30 peripheral areas

31
32 9. The system recited in claim 8 wherein said original single view images are not changed
33 and said program records the values of said parameters and the shape of said peripheral
34 area for each of said images.

1
2 10. The seaming program recited in claim 2 wherein said panorama is displayed in a
3 Panorama Window as said seaming operation proceeds.
4

5 11. The seaming program recited in claim 2 including an Alpha Window which shows an
6 area along the sides of an image, the configuration of said area being changeable, one
7 perimeter of said area designating the area of said image wherein said image has an
8 opacity of 1 in any overlap in said panorama, and the other perimeter of said area
9 designating the area of said image wherein said image has an opacity of 0 in any overlap in
10 said panorama, the opacity varying from 1 to 0 between said areas.
11

12 12. The seaming program recited in claim 2, including means for interactively changing the
13 opacity of an image in overlap area of said panorama.
14

15 13. The seaming program recited in claim 2 wherein said seaming program includes
16 means for creating a Panorama Window which displays said panorama as said seaming
17 operation proceeds, a Selected View Image Window wherein various parameters which
18 specify how a particular image is seamed into said panorama can be changed, and an
19 Alpha Window which shows an area of a particular image wherein the opacity of said image
20 varies from a first value to a second value, and means for changing the size and shape of
21 said area.
22

23 14. The seaming program recited in claim 3 wherein said original single view images are
24 first changed from xy form to hp form and then changed from hp form to a panorama
25 according to the values in a parameter table.
26
27
28